

## ABSTRACT

A 2-D beam scan method using a galvanometer mirror and a polygon scanner has a problem that the polygon scanner is large and noises are increased. Also, a method of oscillating a compact mirror has a problem that a brightness distribution is produced depending on a scan angle.

Hence, a beam is scanned while a relatively small mirror, such as an MEMS mirror, is oscillated at or in the vicinity of the resonance frequency. In this instance, the scan angle is corrected with the use of a correction optical system for uniform illumination to be achieved.